

What is claimed is:

1. A method for replicating data from a storage device, comprising:  
performing a read operation on each allocated data block on the storage device;  
recording each I/O access to the storage device resulting from the read operation;  
5 identifying the data blocks involved in each I/O access to determine which blocks contain  
valid data; and  
replicating the data blocks that contain valid data.
2. The method according to claim 1, wherein the read operation includes reading  
10 metadata associated with files on the storage device.
3. The method according to claim 2, wherein the metadata includes the name of the  
file, access permissions to the file, the date of creation of the file, and dates of modification of  
the file.  
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4. The method according to claim 1, further comprising cleaning a cache on a  
computer associated with the storage device before performing any read operations.
5. A method for replicating data from a storage device associated with a computer,  
20 comprising:  
cleaning a cache on the computer;

performing a read operation on each allocated data block on the storage device, including metadata associated with files on the storage device; and

notifying an apparatus to record each I/O access to the storage device resulting from the read operation,

5            wherein the data blocks involved in each I/O access are identified as having valid data and are replicated.

6.        The method according to claim 5, wherein the apparatus is a software program.

10        7.        The method according to claim 5, wherein the apparatus is a filter driver.

8.        The method according to claim 5, wherein the apparatus is part of a storage management system.

15        9.        The method according to claim 5, wherein the apparatus replicates the data.

10.       A system for replicating data, comprising:

a storage device;

a first software program that performs a read operation on each allocated data block on  
20 the storage device; and

a second software program that records each I/O access to the storage device resulting from the read operation,

wherein the data blocks involved in each I/O access are identified as having valid data and are replicated.

11. The system according to claim 10, wherein the read operation includes reading  
5 metadata associated with files on the storage device.

12. The system according to claim 11, wherein the metadata includes the name of the file, access permissions to the file, the date of creation of the file, and dates of modification of the file.

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13. The system according to claim 10, further comprising a computer associated with the storage device.

14. The system according to claim 13, wherein the first software program resides on  
15 the computer.

15. The system according to claim 13, wherein the first software program cleans a cache on the computer before performing any read operations.

20 16. The system according to claim 13, wherein the second software program manages the storage needs of the computer.

17. The system according to claim 10, wherein the second software program is a filter driver.

18. An apparatus for replicating data from a storage device associated with a  
5 computer, comprising:

a software program for performing a read operation on each allocated data block on the storage device and for notifying a second apparatus to record each I/O access to the storage device resulting from the read operation,

wherein the data blocks involved in each I/O access are identified as having valid data  
10 and are replicated.

19. The apparatus according to claim 18, wherein the software program cleans a cache on the computer before performing any read operations.

15 20. The apparatus according to claim 18, wherein the read operation includes reading metadata associated with files on the storage device.

21. The apparatus according to claim 20, wherein the metadata includes the name of the file, access permissions to the file, the date of creation of the file, and dates of modification  
20 of the file.

22. The apparatus according to claim 18, wherein the second apparatus is a second software program.

23. The apparatus according to claim 18, wherein the second apparatus is a filter  
5 driver.

24. The apparatus according to claim 18, wherein the second apparatus is part of a storage management system.

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